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Rock,
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The Klamath Archaeological Program

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THE KLAMATH ARCHAEOLOGICAL PROGRAM

A POSITION PAPER

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NOTE OF THANKS

This overview of the archaeological program would not have been possible without the cooperation and the assistance of all the individuals involved with the program. Feedbacks from the Districts and the Supervisor's Offices have helped me greatly in my development of this statement.

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This statement is a position paper, not a policy paper. As the program further develops the statement within will alter to reflect current needs.

JAMES T. ROCK
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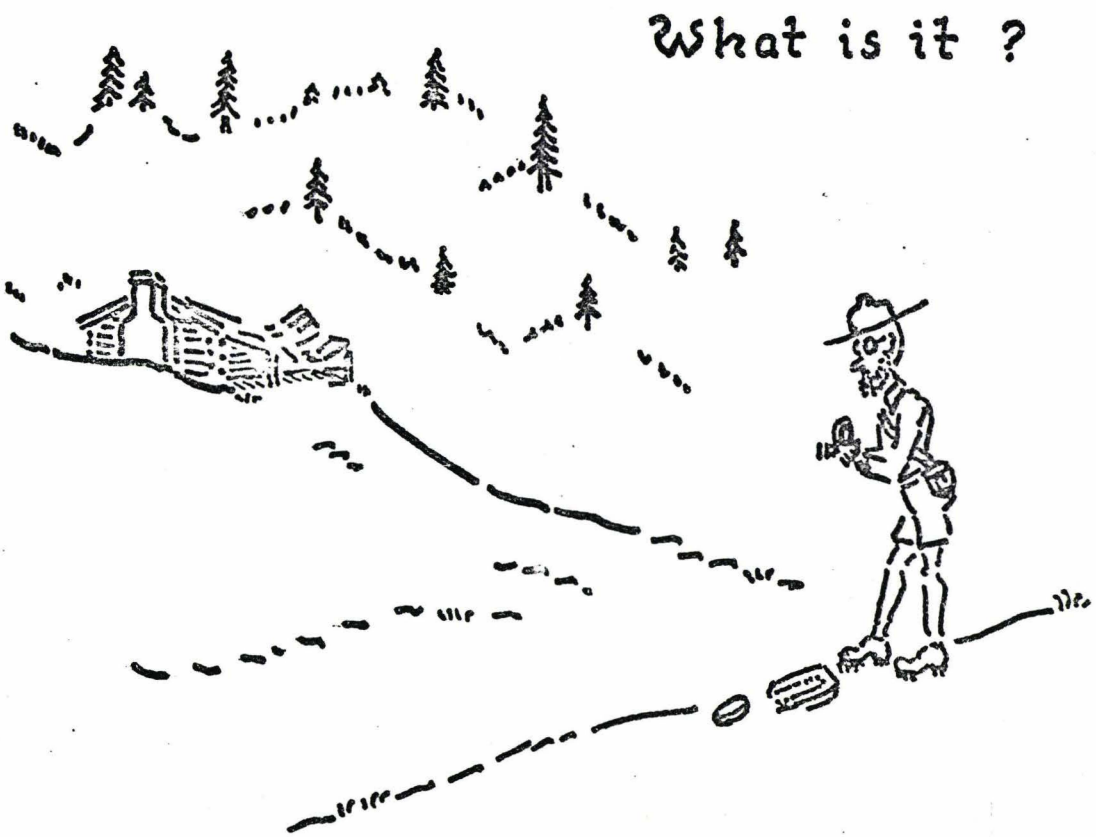
September, 1975


What is it ?

WHAT IS IT?

Archaeology is the scientific study of the material remains of man's past life and activities, remote and recent. Archaeology seeks to learn how man interacted and interacts with his total environment by studying his material remains. Archaeology is often thought of as two separate areas of study. These are prehistoric and historic. In reality the archaeologist who studies the life history of an area must consider both of these in his investigations.

Prehistoric archaeology relies on the evidence of artifacts which are man made objects, and modern data sources concerning prehistoric peoples. Prehistory begins with the first men on the earth or within the area of study and continues until the investigation includes written records. The archaeologist who specializes in prehistoric peoples seeks to learn as much as possible from the physical objects used and left behind by the people whom he studies. He has no actual historic documents on which to draw. Historical archaeologists have documentary evidence that identifies most of the materials they recover. All written records about an area or a time period assist the investigations. Most fragmentary objects, prehistoric or historic, can be analyzed as to their composition, their approximate date of manufacture, and their place of origin. The method by which analysis is made varies slightly between prehistoric and historic researchers.

It is imperative that we recognize that the techniques of archaeology can be applied to any period of time, no matter how recent. Archaeologists' investigations can reveal more than is to be found in written records. The archaeologist is a generalist whose studies include or incorporate information from every field of investigation that relates to the time period and people being studied. Depending upon the knowledge desired, the archaeologist's research will move in the direction of emphasizing the natural sciences, the social sciences, and/or the humanities. These are three major elements of all archaeological research, and they closely correspond to the three major necessities of all human beings - 1) making a living (natural science), 2) getting along with other people (social science), and 3) satisfying the "inner man" through development of peace of mind (the humanities).

Understanding man and his behavior requires drawing together ethnographic, historical, geological, social, botanical, zoological, geographical, and biological data. Outside specialists must be called upon and their contributions integrated into archaeological research so that man's past life ways can be understood. Archaeologists utilize all the cultural and natural resource information available to them. Archaeology is of necessity a multidisciplinary science.

All archaeology is related to history in that it records and explains past events. Some investigations can be assigned as easily to history as to archaeology. Archaeologists deal with the total span of human development,

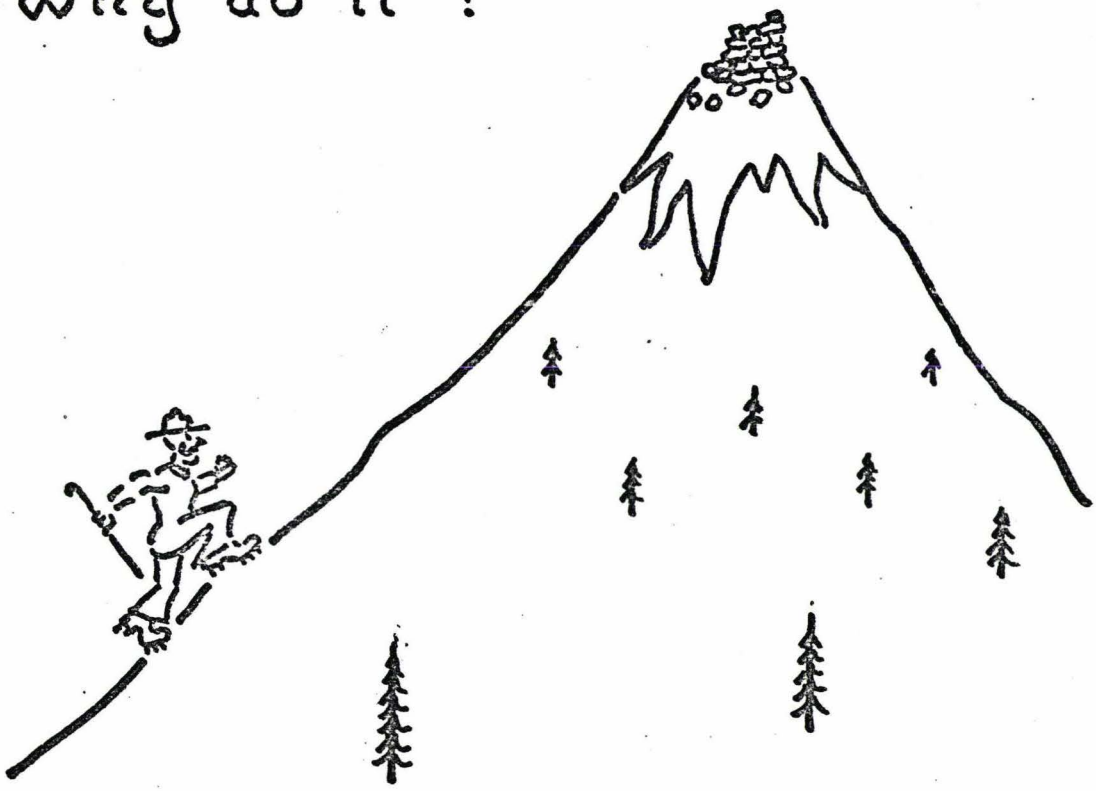
including the ninety-nine percent that is not written as well as the one percent that is documented by written records. Archaeologists study man to learn how he lived, how he utilized the resources available to him, and why changes came about in his way of life. Archaeologists seek to learn the behavior that produced what they study--actual material and/or documentary--and then place this within its proper perspective. This ordering can show the relationship man had with his social and physical environment.

It is often said that remains of American settlement of the West and economic exploitation of an area are too recent to be worth studying. Antiquities after all, it is thought, must be ancient. It is one thing for the English to study their Roman ruins, but quite another for American archaeologists to give serious thought to the study of the material remains (bottles, cans, and cabins) of the early settlers. There are three major reasons why antiquity alone does not dictate archaeological significance: 1) the past is worth studying as soon as it becomes in danger of being lost, 2) the past of Roman Britain and previous American land use in the West are being destroyed at much the same rate, and 3) the remains of previous American development of an area are to the United States what the Roman ruins are to the English.

Conservation archaeology as it is practiced in the Klamath National Forest includes both prehistoric and historic investigations. It is a developing emphasis in modern archaeology. It considers all archaeological materials from the most distant past to the very immediate past. Conservation archaeology attempts to protect man's material cultural remains from being destroyed and lost for future investigation and study. Saving this data may be accomplished by collecting as much information about the resource as possible at this time, or by preserving it so that it may be examined in the future. The central goal of conservation archaeology is to insure that the maximum amount of information is gained from these scarce resources. Conservation archaeologists realize that simple avoidance of a site does not necessarily mean that the site will be left in the condition for maximum information recovery at a later date. The natural elements or man may destroy the site rather than preserving it.

Collection of the information available about any given site must be compiled at the time of its recognition. At times it will be necessary for a site to be studied intensively in order that its significance be assessed or preserved. Conservation archaeology attempts to maximize the information recovered from these scarce non-renewable resources and to maintain it for future generations.

Why do it ?



WHY DO IT?

The Forest Service has recognized that multiple-use planning for an area is not a one-way street. Resources are either renewable or non-renewable. You can harvest trees scientifically and replant to replace them, but this is not the case for many natural resources, including cultural ones, that are present in the same area. Streams that are altered or almost destroyed as a result of lumbering can be revitalized to some extent. The fish populations that are reduced by stream alteration must be assisted by man to be returned to their one-time abundance. The beaver that once abounded in this area are gone. The multiple-use plan of the Forest has made allowances for the replacement of the conditions necessary for fish to breed and the population to expand, but there is a long way to go yet. Minerals that are taken from the ground are not replaceable. Cultural materials that are destroyed are not replaceable.

Once a prospector's cabin of the 1880's is gone, that cabin can never be replaced. These resources are finite and scarce. Once they are removed they can never be replenished. These non-renewable resources are more fragile and perhaps more precious than those where steps--no matter how drastic--can be taken to replenish them. All of these resources may be located in the same area as the Forest. Care in timber harvesting must be coupled with care in preservation and restoration of the other resources that are intermixed in the same physical area.

Successful Forest Service multiple-use planning and management considers all of the resources. To plan for this all-inclusive program of maintenance, the resources must be studied and their locations, habits, ecozones, and scarcity must be determined and integrated into the decision-making process.

The reasons for scientific harvesting of the forest's timber are known and understood. They relate directly to human needs and economics and can be assessed in terms of dollars and cents. Natural resources that are scarce and nonreplaceable, such as minerals, can also be assessed in terms of dollar value at the time. Cultural resources that are noneconomic, at this time at least, in their importance are difficult to integrate within the planning program.

The reasons for preserving these nonreplaceable scarce cultural resources are at times abstract and elusive, but a few simple but useful examples of these resources are presented. The location of sites--camps, cabins, or mines--was determined by the natural resources available to those who lived or worked within them. The knowledge of the number and extent of these sites can tell us today just how important these mineral natural resources were when they were exploited in the past. Perhaps we are not making full use of these at the present time. We must learn the extent of past exploitation in order to know the past importance.

It should be possible to learn just how efficient the utilization of these past resources was and how it was done. If it was inefficient by today's standards, this should be a cue to us not to repeat the same mistakes. If the past resource is a renewable one, we can learn if it was completely exhausted or why it was abandoned as a resource.

The cultural and natural resources that are present in the same area may not be utilized to their best advantage at the present time. If this is the case, it is through multiple-use planning for the future that this error can be corrected and avoided over the long run. Maximization of return for all the resources has no short cuts; it takes careful planning and consideration. Who can predict what the future will determine as being of maximum importance? Comprehensive multiple-resource planning must be implemented in such a way that benefit can be derived from all the resources present today, while insuring that they will also be available for the future.

Federal law provides another reason why archaeology is now emphasized in the National Forest. This reason is technically easy to understand but often hard to comply with. Laws: 34 Stat. 225 (PL 59-209); 49 Stat. 666 (PL 74-292); 74 Stat. 220 (PL 93-291); 80 Stat. 915 (36 CFR 800); 36 F.R. 8921 (16 U.S.C. 470); 83 Stat. 852 (PL 91-190); and 43 F.R. 3, require care, preservation, and recording of cultural and natural resources on Federal lands or in Federally assisted projects. These laws are clearly stated and defined, but the rationale behind them is masked within the "legalese" of their documentation. It is not enough to say that our history and prehistory need to be saved because they are there, or that our cultural and natural resources deserve a break. Comprehensive, productive, positive management is the way to attain the goals outlined by legal actions. Reserving a research preserve for the future sounds somewhat unintelligible, but it is indeed a legitimate and major concern. This goal has long range value, but in present day practical management it is difficult to plan for effectively. It is not possible to predict what the future may demand of us. Yet, it is easy to recognize that nonrenewable resources--such as animals that became extinct or cultural properties, that once destroyed, can not be replaced--need serious consideration.

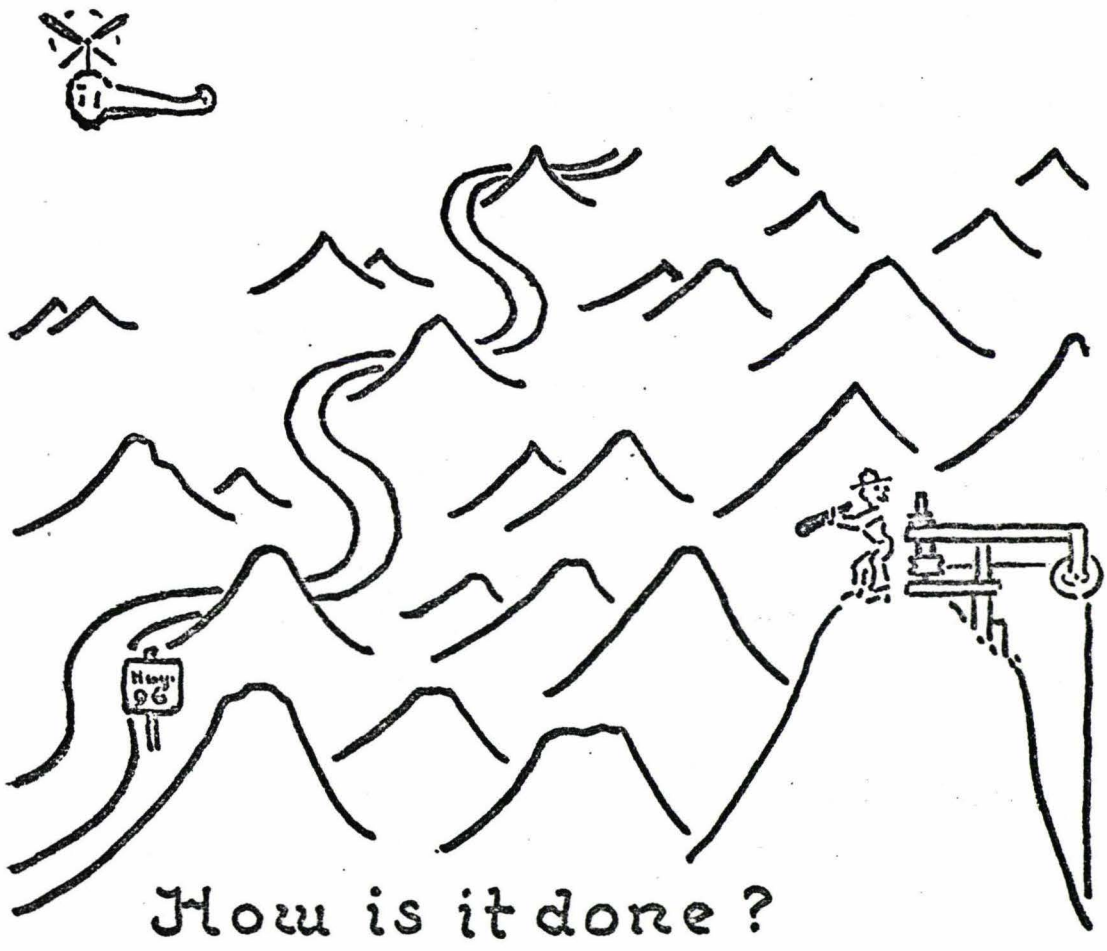
Who can say if in the future we will need to know how people survived 10,000 years ago; but the fact is that they did and we can learn from them. At times early man failed to cope with a given situation, and at other times he may have employed a more efficient use of the resources than we do today. Fifty years ago who would have said that solar energy would be important----but today! Look at the modern home with thermopanes, insulation, air conditioning, and look at the pit house with natural temperature control. It will be impossible for us to benefit from man's past experiences and efforts if we systematically erase the traces of their past existence. If a site is located so that it receives winter sun and is protected from wind, this may indicate that winter or year-round occupation of the area took place. It certainly indicates that man in the past considered the elements and dealt with them as best he could. If a site is located on a slide area or is low near the river and today the river or the slide is removing it, this demonstrates that man used poor judgment in this instance or that the environment changed. Should we not be aware of this to avoid making the same mistakes today? Alternatively this might be a result of changes that we have brought about by modern land use.

How can we really plan for the future except by consulting our past? We must to be far-sighted enough to recognize our limitations about predicting future needs and desires. We can only hope to be sufficiently intelligent to maintain a reserve of all resources so that in the long run we will have them available to use if and when the necessity arises.

The preceding examples of information that can be learned or reemphasized by studying man's past are simplistic, but hopefully graphic of the uses that can be made of the limited data available to us today. The true significance of man's previous utilization of an area is masked by time and our own ignorance. We may not be asking the questions that will be asked fifty years from now, but hopefully we will maintain a reserve of resources so that when a question is asked, the resource is available to answer it.

Immediate goals often hide the long range possibilities. Multiple use of the Forest's resources is coming of age, but we have a long way to go to achieve this goal. This process demands give and take. We can not just take and take; we must give in order to succeed in the long run.

Today we are harvesting trees scientifically. We are replanting them in plantations when this is necessary so that the trees will be available in the future. Wild life was not even considered as a valuable resource. It was something to be exploited. Today we are harvesting trees with an eye toward future production; wild life continues to be studied and attempts are being made to stabilize the populations or to bring them back up to what is considered an acceptable level. These are pioneering efforts; we are trying. In recognizing some past mistakes, we work to correct them, not to repeat them. These are not obstacles to be removed, rather they are resources to be considered, preserved, and used profitably for all time.


How is it done ?

HOW IS IT DONE?

The key to the archaeological program in the Klamath National Forest is joint effort. This cooperation must include all pertinent information available about any resources that are present in the area. If a particular specialist is needed or specialized information is not available within the Forest, then assistance must necessarily be sought outside.

There are two different roles of archaeological investigation in the Klamath National Forest. These are the District and the Forest roles. Personnel at these levels are the district archaeological reconnaissance personnel guided by the forest archaeologist. The district reconnoiterers (designated as reconners in Klamath National Forest) perform the task of locating and recording archaeological sites and individual artifacts. As members of the district teams, they must exchange information with the entire staff. Such information includes numbers and types of sites--not specific locations--found during the field season. The archaeological reconnaissance conducted by these individuals is of extreme importance, but relevant information provided by other staff members will contribute significantly to the success of the program.

Training sessions are held by the Region to orient these individuals and to insure that they have the skills necessary to conduct professionally adequate reconnaissance. The attitude and commitment of each person will affect the accuracy and completeness of information obtained and recorded. Perhaps the greatest skill that can be learned is when to ask for assistance. If a stone tool is found and the finder does not know what the stone is or where it came from, the Forest has several geologists that can answer this question. If the reconner does not know what the tool was used for, he can ask the Forest archaeologist. If the archaeologist does not know what the object was used for, he will in turn seek an answer from other professionals in the field.

It is up to the District reconner in the field to recognize physical artifacts and write the archaeological reconnaissance reports. This report form was developed to meet the needs of documenting search patterns and artifact finds. It is the responsibility of the Forest archaeologist to see that these requirements are met before any report leaves the Forest. It rests with each reconner to draw together the information gained from his district and acquaint his district personnel about what he has learned. At times the form and the information requested may appear a bit unwieldy. Since the program being developed for the Forest is dynamic, constructive criticism is always useful. It is, in fact, the only way that the program will grow, improve, and be successful. Suggestions will be noted and discussed with all the reconners, and if it is felt that a change beyond their authority could benefit the program, the Forest Supervisor and, if necessary, the Regional Forester will deal with it.

Above all the reconners must be honest in all reporting. If an area is not fully inspected, this should be stated frankly, and that specific area indicated on the maps. If the duff is too heavy to see the ground under it, say so.

If time did not allow a reconnaissance that covered a really representative area of the project site, state this in no uncertain terms.

The Forest archaeologist has definite responsibilities and obligations. 1) He must assist the districts in every possible way in their archaeological efforts. 2) He is to keep the Forest Line and Staff Officers informed about current legislation that directly affects the program. 3) He is held professionally responsible for the quality and completeness of the reports, and he is charged with the obligation of sending these Klamath Forest reports to the State Historic Preservation Officer and to the Department of the Interior when applicable. 4) He must make every attempt to keep the program and the Forest personnel from violating the legal requirements and from encountering difficulties that are based in the cultural aspects within the Forest. 5) He must be ready and able to assist in the forest multiple-use program and the Land Use Planning process in general and each district specifically in the application and implementation of the archaeological program. 6) If priorities of investigation are set, the judgment of the archaeologist and the appropriate Forest officers should be pooled so that the most equitable and satisfactory solution can be reached. Last but not least, 7) he is to consolidate the information obtained by the program, and in turn inform the Forest personnel of the results of the information-gathering and recording program. As the knowledge gained warrants, he'll arrange to inform the public of significant results obtained.

If and when the District Rangers request it, the archaeologist will assist in designing the methods by which an area is investigated. For example, the archaeologist might assist in the placement of sampling transects so that the variation of topography and vegetation in the area are examined. In the case of new road construction, however, he insists on a 100% survey since it is known before the project begins that the area and its cultural resources will be significantly altered. The archaeologist may assist in actual field work as well. It is not possible for the Forest archaeologist to ground examine all land impact projects. The concept of District reconner is an extension of the professional archaeologist. The Forest Supervisor, through the Land Staff Officer, will coordinate the District Rangers' requests for detailed ground examination by the Forest archaeologist.

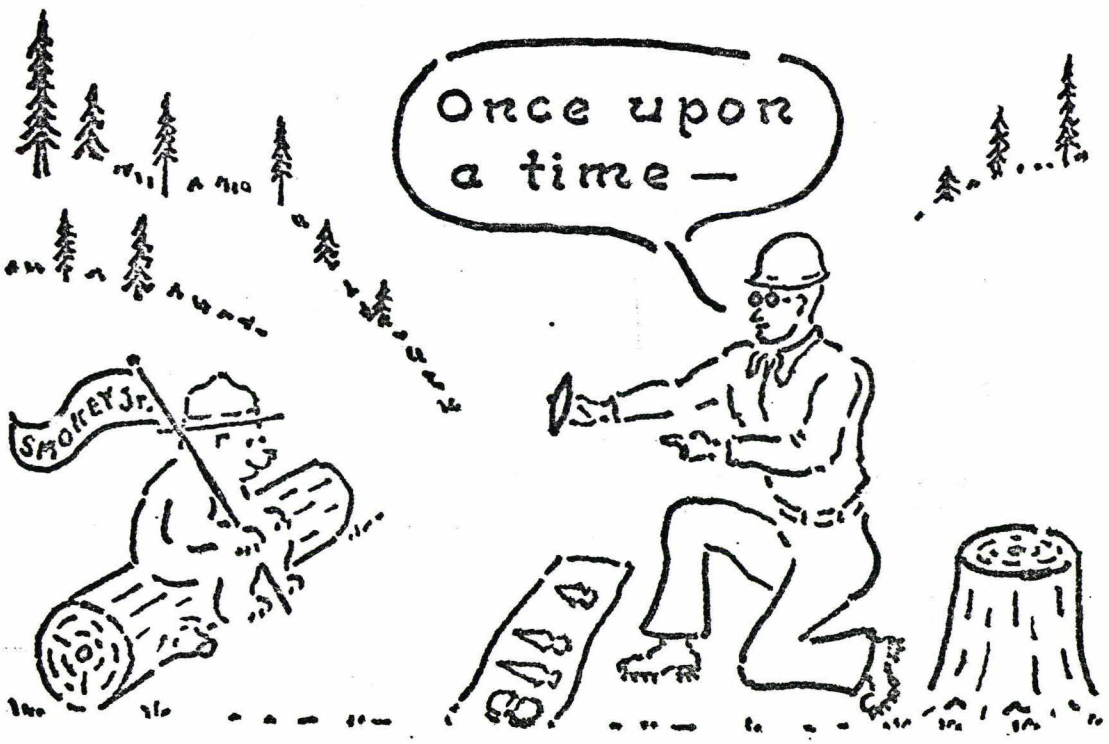
Continual contact with other professional archaeologists and knowledge of changing emphases in archaeology and regulations is the responsibility of the Forest Archaeologist. The archaeologist must communicate new information to the work force, as well as informing the archaeological community of the activities of the Forest Conservation Archaeological Program.

When new research interests occur in archaeology, the Forest Archaeologist must inform the line officers of the changes and assist in adjusting the program to meet the goals. If new research interests are seen as being beneficial to the program, and they will not significantly alter the overall program, the Forest Archaeologist will incorporate them into the ongoing program.

When Archaeological Reconnaissance Reports (ARR) are submitted to the archaeologist, he will review them for adequacy and completeness before they are sent on as representative of the Forest's research data collection. He will supply a copy of the complete report to the District from which it originated. As the program develops and communication between the reconners and the archaeologist increases, it is assumed that the quality and consistency of the reports will continue to improve. Once a report leaves the Forest, it is the responsibility of the archaeologist to support the accuracy of this document.

There is no simple all-encompassing answer as to how archaeology is implemented. At this time while the Forest Conservation Archaeology Program is developing, it is absolutely necessary for all the individuals involved to cooperate and develop a dynamic program within the Forest's resources and multiple-use perspective. In archaeology change is continual--change in regulations, change in needs, change in manpower available, and change in emphases or priorities. This demands that the program be kept flexible and progressive. These goals can only be achieved by team effort.

How much is known?



HOW MUCH IS KNOWN?

The first men probably entered the Americas by the Bering Strait land bridge between 25,000 and 10,000 B.C. These first Americans hunted large mammals with stone-tipped darts. Evidences of these stone tools and fires have been found in California, but not yet in Siskiyou County. Evidence of early man for this time period is rare and often questioned, but as research continues and collection of information is expanded, a clearer understanding of man's early presence in northern California will emerge.

Findings in other areas of California already demonstrate that a wide variety of stone tools was being made by man and used in hunting between 10,000 and 7,000 B.C. Other evidences of man's habitation further suggest that man then lived in small groups and was quite mobile.

The early inhabitants of California appear to have expanded their food base and technology beyond hunting between 7,000 and 2,000 B.C. Seed gathering and processing became more important to the survival of these people. Processing equipment such as manos, metates, and bedrock mortars that date from this time period have been found in northern California. Evidence of settlements with permanent structures and larger groups of people is present, and these groups were able through cooperative effort to exploit their environment more efficiently. Here in northern California--especially northwest California--the Borax Lake Pattern is present and is represented by milling stones as well as unique projectile points. These peoples' sites are commonly found in valleys and on high-elevation ridges and passes. A good example of this complex has been identified in Lassen County at Surprise Valley.

Between 2,000 B.C. and A.D. 500 there was a significant population expansion of peoples within our state. This is reflected by an increase in the number of prehistoric sites of this time period. Collection of plants and their products had become increasingly important as evidenced by acorn collection and its processing equipment--mortars and pestles. Hunting was still important, but there seems to have been a major shift in emphasis from a focus on hunting to a central focus on food gathering and collecting. The coast north of Eureka had large villages that based their economy on harvesting from the sea. The Borax Lake Pattern appears to have been replaced by the Houx Pattern stone tool complex. This pattern has distinctive-shouldered, round-based spear points as well as mortars and pestles. Settlements have burial areas, and from information obtained from these, it appears that distinct social groups were present within the population. The life style of these people included both permanent villages and large and small seasonal camps.

By A.D. 500 the California Indian population had established itself within definite territories that they regarded as their own. Trade was carried on between these groups, and interaction both friendly and hostile took place.

These large groups lived in settled villages within Siskiyou County, and further refined skills in fishing and acorn gathering that are characteristic of their specific areas. Ritual activities related to their subsistence base developed and were incorporated into their way of life. Technological advancements took place as they developed the bow and arrow and most probably the fish dip net. They operated out of large villages, but continued to hunt in the high mountains and gather and process seed away from the villages. Villages that were along the Klamath River were linked together by ritual activities that occurred periodically and served to unify to some extent the loosely organized groups of people even though they lived and thought in terms of separateness of villages.

By 1825, and more intensely by the 1830's, a new group of peoples began to move into the county. These men were trappers and traders, most of them members of the Hudson Bay Company. These "Mountain Men" came into the area to exploit the beaver that abounded in the rivers of the county. The Karok, Modoc, Achomawi, and Shasta peoples did not know how to react to this new intrusion into their territories, but the fragmentary records that we have suggest that for the most part these two groups of peoples interacted peacefully. At least fifteen groups of these men came to the Klamath, Shasta, Scott, and Salmon Rivers and their tributaries in quest of beaver. Many of the names of both rivers and mountains within the county are credited to these men. Yet, to date, very little physical evidence of their presence has been found within the county. Trappers established the Steven Meek trail across the Shasta Valley, and if history is correct, they camped at Sheep Rock. Several cabins from this time period have been identified. One of these men, Jno. B. Smith was buried in Siskiyou County in 1839. Hudson Bay trade goods have been recovered by archaeological excavation in the Gazelle region. We know of these men's presence, but we do not know the extent of their exploration and utilization of the area.

The Indians' life style appears to have been altered very little by the presence of the Mountain Men, but trade goods should be present within the Indian encampments and villages that had contact with these people. Trade beads, mirrors, and axes were typical trade items that these men carried to exchange for supplies. When we locate these items, we can state much more accurately just where and how and how much these men's influence was felt.

By the 1840's and most importantly the early 1850's, the miners arrived. These newcomers competed directly with the Indian populations for living space. The miners exploited a different resource, but it was located exactly where the Indians' subsistence base was located. The common area was the rivers, and the resources were gold and fish. The direct competition and prolonged contact brought discord as well as disease. Such was not the case when the trappers visited the county. The miners were here to stay and the Indian populations were in the way. With this conflict some attempts were made on both sides to keep the peace. The Indians often moved back from their sacred village locations, but as they did, more prospectors moved in. In 1851, two significant events took place in the county that weighted the scales heavily in favor

of the miners. The Redick McKee expedition entered the Siskiyou County area and attempted to make treaties with the Indians, but as a result of its failure to understand the complexity of the Indian social organization, the military of the United States established Fort Jones in that same year. With the establishment of the fort, the Kelsey trail was built so that supplies could be brought into the Scott Valley more easily.

Several other types of pioneer exploiters entered the county at about the same time as the miners. These were the settlers--the ranchers and farmers. Once these individuals established themselves, towns began to appear. Gold camps--many of which had once been Indian villages--became established. Some camps were short lived, but others still remain today. Transportation routes were established in all directions in Siskiyou County, and access was made more easy. The miners and stockmen were quick to adopt new technological methods for exploitation of the resources available to them. The Indian population less rapidly, and not without some bloodshed, accepted the changes and the new way of life that was developing within the county.

The miners and ranchers had to learn the same lesson that the Indians had learned earlier. When new technology and demands are created, new means of response to them will be developed. People of many different national origins came to the county to work in the various industries. The lumber industry quickly became established, and it began to exploit the forests within the county. This diversity of population and resource utilization is still very apparent within Siskiyou County.

Today some mining persists, but logging has come to dominate the forest lands while ranching prevails in the valleys. The populations all place various emphases upon certain rather well-defined areas within the county. The Indian population still looks to the river--at least with an understanding of how good it was to them in the past; the miners still examine the tributaries; the ranchers view the rich fertile valleys; and the loggers see the forests as the primary resource of the county.

Today many of these peoples look back at the manner in which their separate ways of life developed and think fondly of them. The Indians are now reviving many of their sacred ceremonies that fell into total or partial disuse early in the transition, and the settler population looks at their centennials and annual celebrations within the various communities as being an important means of remembering their past history. The descendants of the original inhabitants and the settlers have much in common. Each group has every right to revere its past.

The general pattern of Siskiyou County development is known, but in all cases the specifics of where, when, and how are obscured by the changes that took place after the original exploitation. The need is for an increase in accurate documentation of the events that occurred. Some of the past is remembered, but much more is not even recorded and is in grave danger of being lost for future generations.

Just as certainly as man goes on living, history and change go hand in hand. This change should be documented, and hopefully will be better understood as time and interest record the progress that has taken place and will continue to take place within Siskiyou County and the Klamath National Forest. It is up to us to recognize and act upon the fact that the longer we wait, the less we'll be able to document. The record exists in what is left behind by those who have gone before.

APPENDIX I

CULTURAL AND NATURAL RESOURCES: FOREST SERVICE MANUAL 2360

SCOPE

Management is responsible for the cultural and natural resources that are located within the Forest. It must consider the following resources during the decision-making process:

CULTURAL RESOURCES

1. Archaeological Sites
2. Historic Sites
3. Neoteric Sites

NATURAL RESOURCES

1. Scenic Areas
2. Geological Areas
3. Botanical Areas
4. Zoological Areas
5. Paleontological Areas

DEFINITIONS

Cultural Resources

These consist of any features of items that have been altered by man, i.e., a prehistoric Indian spear point, an historic miner's diggings, or a modern space platform. These all are results of human efforts.

Natural Resources

These resources consist of any unique feature or area that can be recognized as a unit, i.e., an obsidian outcrop, a vegetation climax zone, or an unaltered view of a mountain valley. These resources are created by nature.

THE THREE MAJOR CULTURAL RESOURCES

1. Archaeological Resources

An archaeological resource is any material item manufactured or altered by man. These may range from a bedrock mortar to the village in which prehistoric Indians lived. Archaeologically speaking, these are both sites. A site is a location where man lived or worked.

2. Historic Resources

Any material item, made or used by man, that has been recorded in written records, i.e., an Anglo settler's cabin or an Indian village that has been described in writing. These two entities are sites just as much as their prehistoric predecessors. The difference here is the existence of written records.

3. Neoteric Resources

These sites contain outstanding examples of man's modern culture, i.e., the first ranger station constructed using solar energy for power.

THE FIVE MAJOR NATURAL RESOURCES

1. Scenic Resources

These areas are places that are naturally beautiful, i.e., Mt. Shasta. These resources may have been created by nature or man.

2. Geologic Resources

These may be made up of unique or rare geologic features such as caves, fossils, or natural stratigraphic disturbances that illustrate the time sequence of the earth's formation or an event therein, i.e., Yellowstone Park.

3. Botanical Resources

These resource areas may include plant climax areas, or succession zones, or rare plant forms, i.e., the giant redwoods or Organ Pipe National Monument.

4. Zoological Resources

These areas contain rare and unique animals or group of animals. These animals may be rare simply because of the way in which they have adapted to the environment, i.e., sea otters.

5. Paleontological Resources

These resources consist of select specimens of plants and animals. The time depth of this resource may extend back to the first life forms to exist on earth, i.e., dinosaurs or Paleozoic brachiopods.

PROBLEMS

There is one basic problem that is fundamental to all of these scarce resources. In order to be preserved they must first be identified. Once identified, steps must be taken to delimit and define them accurately as important resources. The difficulty in defining these resources is that each one of them may consist of a very diverse combination of elements. These elements may be interdependent or dependent upon other factors. An example of this definition and deliniation problem is how one defines an area as scenic. The problem here is that beauty is in the eye of the beholder, and the area, for management purposes, must be defined based upon more than an individual's viewpoint.

There are a large number of practices of the present policy that could create adverse impacts upon the scarce resources that exist within the Forest. It must be remembered that a biological resource can be destroyed just as easily as an archaeological one.

Direct Adverse Effects

These effects directly alter or destroy the properties, i.e., development of a natural lake for recreation which alters evidence of past use of this area by earlier people.

Indirect Adverse Effects

These effects alter natural and cultural resources through inadequate consideration of the resources during project planning, i.e., increased erosion by timber harvesting that washes out an Indian campsite, or a hiker who collects obsidian along a trail.

Beneficial Impacts

Some examples are:

1. Enrichment and expansion of public education and interpretation
2. Archaeological, historical, natural and esthetic information aids in the understanding of other Forest environmental studies--floral, faunal, geological, zoological, etc.
3. Provision of long-range contribution to the understanding of human behavior and the general natural and cultural history of the area
4. Enabling the Forest to provide leadership and assistance to the growing number of local, county, and state societies that are concerned with these scarce resources
5. Insurance by the Forest that these scarce resources are preserved as a data base for future needs and research

SOLUTIONS

By utilizing the multi-disciplinary approach as required by law, examination of these cultural and natural resources can best be understood and appreciated. None of the resources can be objectively studied if the others are excluded from consideration. They all have a physical location that can be identified and clearly defined. The problem becomes more complex when we attempt to define these resources using the same mechanisms in every case. To solve this problem explicit definitions of spatial bounding need to be developed for each resource site or area. In order to develop these definitions, experiments and sometimes tests must be conducted. Once these sites and areas are recognized, identified, and defined, then, and only then, can an attempt be made to meet the legal requirements that presently exist. Until these scarce and irreplaceable resources are identified and understood within their cultural or natural context, no judgment can be made about their true significance or importance.

APPENDIX II

REGULATORY POLICIES

The following is a brief, concise summary of certain regulatory policies and practices pertaining to the handling of archaeology as presently prescribed by the Federal Government. (A complete text is available upon request.) The underscored terms are emphasized by the Federal Directives.

Executive Order 11593 (35 FR 4247)

Sec. 1

1. The Federal Government shall provide leadership in preserving, restoring and maintaining our historic and cultural environment.

2. Federal agencies are stewards of the cultural properties on land they administer and are responsible for care and preservation of those properties.

3. All sites, buildings, districts, and objects on Federal lands shall be located, identified, and evaluated for eligibility to the National Register, and if found to be eligible, nominated to the National Register of Historic Places.

4. Until all materials are inventoried, caution shall be exercised to assure that property which might qualify for nomination shall not be transferred, sold, or demolished. Records shall be made, including measured drawings, photographs, and maps.

5. Federal agencies must maintain, preserve, rehabilitate, and restore all Federally owned National Register properties.

National Environmental Policy Act of 1967 (PL-91-190) 42 U.S.C. 4321

Sec. 2 Goals.

1. To prevent or to eliminate damage to the environment and the biosphere.

2. To enrich the understanding of ecological systems and natural resources, and (Sec. 101a) to restore and maintain environmental quality.

3. The Federal Government will cooperate with state and local governments and public and private organizations to create and maintain conditions under which man and nature can exist in productive harmony.

4. The Federal Government must preserve important historic, cultural, and natural aspects of our national heritage and maintain, whenever possible, the environment.

5. Government research shall be systematic and inter-disciplinary, relying on both the natural and the social sciences.

Procedures for the Protection of Historic and Cultural Properties (36 CFR 800)

(This Act is the basis for the FSM 2360 regulations.)

1. This Act mandates protection of all properties possessing historical, architectural, archaeological, or cultural value.

2. This Act is pursuant to E.O. 11593, PL 91-190, PL 93-291, 42 U.S.C. 4321, and 16 U.S.C. 470.

3. The Advisory Council shall review all Federal, Federally-assisted, and Federally-licensed undertakings.

4. 800.1 Federal agencies are required to locate, inventory, and nominate, in consulation with the State Historic Preservation Office, properties under their jurisdiction to the National Register. (If land upon which these properties exist is to be transferred, sold, or altered, its eligibility for the National Register must be reviewed and commented upon by the Council before this action is taken.) Review requirements must be continued even after the initial inventory is complete. New acquisitions must undergo the same inventory and nomination process.

5. Agency obligations to the National Historic Preservation Act and E.O. 11593 are independent of NEPA and must be complied with even if an EIS is not required.

6. Assessment of effect, adverse or not, must be made for all projects. If an effect will be adverse, directly or indirectly, alternatives must be considered.

7. Adverse effect will be mitigated if the adverse effect cannot be avoided.

8. A report must be submitted to the State Historic Preservation Officer.

9. "All statements involving historic, architectural, archaeological, or cultural resources, whether or not included in or eligible for inclusions in the National Register, should be submitted to the Department of Interior for review."

Moss-Bennett Bill (PL 93-291)

1. This bill expands and clarifies (16 USC 461-467) the Reservoir Salvage Act of 1960.

2. It applies to any alteration of land by a Federal construction project or by a Federally-licensed project, activity, or program.

3. This bill states that an inventory of archaeological and historical properties will be made prior to alteration.

4. If alteration or destruction of property is unavoidable, a contract must be let to salvage the information that would otherwise be lost.

APPENDIX III

GENERAL PREHISTORIC TRAITS OF THE INTERIOR VALLEY CALIFORNIA INDIANS

POLITICAL UNITS: The largest were villages.

POPULATION: At the most a few hundred per village.

SOCIETY: Stratified according to a person's individual qualities rather than class.

WARFARE: Based on small scale raiding parties.

TRADE: Often done over long distances; trips were undertaken by small groups.

MORTUARY PRACTICES: Introduction of a cult of the dead. Burials were sometimes elaborate.

RELIGION: Charmstones and pipes or sucking tubes indicate shamans were used in curing, sorcery, and controlling of nature.

ECONOMY: The economy was based on plant seeds - predominately acorns - small game consisting of birds, fish, or larger game such as deer and elk.

CHRONOLOGY: Early Period - from 5,000 to 2,000 B.C.
Middle Period- from 2,000 to 250 A.D.
Late Period - A.D. 250 to Caucasian intrusion

THE EARLY PERIOD

Windmiller phase; sites are located on clay knolls and flats of the lower Sacramento Valley. This area was grassland and oak groves.

Economy: Hunting and fishing more predominant than seed gathering.

Stone Artifacts:

1. A few slab metates and bowl mortars.
2. A predominance of large, stemmed, chipped projectile points.

Bone Artifacts:

1. Bone fishhooks and gorges.
2. Bone trident spears.
3. A few bone splinter awls, daggers, pins, needles, bird bone tubes.

Basketry:

1. Twined weaving.
2. Baskets were important as containers and cooking vessels.

Burials:

1. These were usually primary internments.
2. Bodies were placed in an extended, prone position.
3. A majority of the associated artifacts were Ollivella and abalone beads, chipped stone projectile points, quartz crystals, and charmstones.
4. Charmstones were ground and polished.
   a. They were fashioned in flattened or cylindrical forms tapering to either end from a central bulge.
   b. They were either alabaster, granite, or blue schist.

THE MIDDLE PERIOD

Here there are two main areas, the Coast and the Interior Valley regions. They were similar in the following ways:

Burial Techniques:

1. Bodies tightly flexed.
2. Fewer grave goods.
   a. A few had extensive grave furniture.
   b. All cremations had associated artifacts.

Projectile Points:

1. Obsidian was used more than in the Early Period.
2. Types were otherwise similar to those of the Early Period - large and suited to the lance or dart.

Fishing Gear: Was used by both Early and Middle Periods but with various modifications.

Bone Tools: In general, these were more widely used than in the Early Period.

Shell: Consisted of circular or rounded rectangular beads of abalone, typical of the Middle Period.

1. These were strung and attached like sequins.
2. Beads were scattered all over the burial.
3. Larger circular and perforated abalone shell ornaments were also characteristic of the Middle Period.

Charm Stones: Present.

Contrasts between the Coast and Inter-Valley regions of the Interior Valley proper:

The Coast:

Economy: Moved toward a maritime economy.

Burial Techniques: In the graves, bone tools such as long spatulas were found located near the head of the individual. These possibly could have been head scratchers or hair pins.

Fishing Gear:

1. Notched stone weights, presumably used as anchors for nets.
2. Suggests a seining technique.

Ground Stone Ornaments:

1. Prismatic obsidian splinters (tinklers).
2. Pentagonal ornaments of perforated mica.

Charm Stones: Pyreform stone with short stem.

Basketry: Little known.

The Interior:

Economy: Hunting, river fishing, and plant collecting.

Burial Techniques: Cremation.

Fishing Gear: Bi-pointed bone fish gorge and unilaterally barbed bone fish spear preferred. This suggests the importance of line and spear fishing.

Ground Stone Ornaments:

1. Ring shaped and elongated perforated slate ornaments
2. Beads
3. Ear plugs

Charmstones: These had a flattened or fish tail end.

Basketry: Consisted of baked clay, balled, used for "basket boiling."

Bone Artifacts:

1. Long pendants
2. Beads
3. Tubes
4. Perforated or grooved animal teeth

THE LATE PERIOD

Weaponry: Predominately bow and arrow. Projectile points were small triangular stemmed or side notched. They frequently had serrated edges and were usually made of obsidian.

Seatite was commonly used for long tubular pipes except in the south and east where pottery had been introduced by the Patayan of the Southwest.

Shell and Stone Beads and Ornaments became

1. More numerous,
2. More diversified,
3. More elaborate.

Occupation: Villages located in the open valley areas or within river valleys

1. These were near streams.
2. These provided wildfowl and small game.

House Type:

1. Center fireplace
2. Circular dwelling, 4-7 meters in diameter
3. Dome shaped
   a. It was made from driving poles into the ground and bending them inward.
   b. It was then covered with dried grass or reeds which were woven between the poles.

Other Structures:

1. Sweat houses, usually one to a village
   a. Semi-subterranean
   b. Heavy pole framework
   c. Earth covered
   d. Entrance through the roof
   e. A public or ceremonial structure comparable to the kiva.
2. "Dance Floors"
   a. Slight oval depressions in the ground
   b. About 20 meters or more across their maximum diameter
   c. Contained packed earth free of debris
   d. Surrounded by low embankments of boulders and earth
3. "Council Chambers"
   a. Circular stone enclosures
   b. Contained wooden posts within, bearing pictures or insignias
   c. 6-7 meters in diameter
   d. Outer ring composed of massive boulders
   e. Within the outer ring, a small ring of small stones set on end
   f. Roofing pattern unknown

Caches Contained

1. Charmstones
2. Small stone effigies of whales
3. Phallic-like "snake heads"
4. Gaming dice, presumably

Burial Practices

1. A cemetery area within the village proper
2. Burials typically primary, tightly flexed and in a small pit into which grave goods have been placed
3. Stone bowl frequently inverted over the head or hips
4. In some instances, burial furniture broken before being placed with the dead
5. Some grave pits prepared by firing the sides; others lined with stone slabs, smeared with clay, then fired
6. In all cases the bones placed in the grave after the firing

These people were exceptional stone carvers, using sandstone and seatite.

Stone Artifacts

1. Carefully pecked, ground, and smoothed
2. Hemispherical, flat-bottomed, inverted conical, sub-globular, and shallow elongate bowls
3. Elongated types, possibly oil lamps
4. Large vessels used for water storage
5. Smaller forms, dishes
6. A corn mortar with a bottomless basket glued to the rim with asphaltum was used in hulling, grinding, and winnowing nuts. Meal was then leached with warm water

Miscellaneous

All carry overs from the Middle Period with various modifications

1. Charmstones
2. Perforated stone discs
3. Pitted stones, probably used as small anvils or hammers
4. Grooved stones used as net weights or bolos
5. Bone tools and hair ornaments
6. Shell fishhooks and beads
7. Chipped stone spear and arrow points

In Summary, California is known for its diversification in every area.

From Willey 1966

APPENDIX IV

RESEARCH DESIGN

The suggestions presented here are to provide a guideline for explicit presentation of the plan and organization of an archaeological proposal rather than to place theoretical or methodological restrictions on the researcher. This plan should conform to scientific standards and procedures and be consistent with productive research and best possible resource management. It is fully recognized that there will be a limit of predictibility of the results of research, and that the researcher must have the flexibility to adjust his goals and procedures as field work progresses. Effective, productive research is more probable if a design is developed as clearly and definitely as possible. As a result the plan for operation must cover the entire research sequence and its logic from the general assumptions and theoretical orientation to operational statements describing the procedures to be used in the study.

Justification of the procedures for data recovery and analysis in terms of the stated aims of the project is of greatest importance. By no means does this mean that routine data collection is rejected; however, it is hoped that unplanned shotgun approaches to projects can be avoided. By utilizing a research design, specific analytic and recovery procedures will be outlined and justified before the field work begins.

A research design for any archaeological investigation presents clearly and comprohensively a plan. The investigator should always have the prerogative of modifying and revising the research. Multiple working hypotheses indicate the scope and variation necessarily encompassed in scientific research.

Ideally the research design methodology seeks--

1. to provide the researcher with a vehicle to express and develop explicitly the rationale behind the proposed research, giving the theoretical backgound, justification for problem selection, logic, priorities, and procedures for the investigation;

2. to define the total area of study and realistic expectations of proposed research;

3. to permit the contracting agency and professional reviewers to identify and assess the appropriateness of the proposal in the perspective of current professional capabilities and standards;

4. to provide a realistic, logically developed, and adequate schedule of research, and to define explicitly the recovery techniques;

5. to provide for the productive, efficient, and justifiable recovery of archaeological information;

6. to permit comparison of the research objectives with actual accomplishments and reduce the discrepancies between research expectations and results;

7. to determine the degree to which funds meet research needs and to provide a basis for realistic funding; and

8. to provide a schedule for research within the restrictions imposed by the time allowed and the funds available--allowing for the pre-field research, field work, analysis, synthesis, and write up.

ELEMENTS OF A RESEARCH DESIGN

1. The basic archaeological and anthropological perspective governs research formulations. The objectives and reasons for the work, the underlying assumptions, and the theoretical, organizational, and methodological approach employed are essentials to be included. A research design defines and explains why these perspectives and emphases are applied, and in particular, why they apply to the research project proposed.

2. The perspective presents the environmental, prehistoric or historic archaeological data, and relevant ethnographic or ethnohistoric context of the project area. It includes, where obtainable, periods of occupation, cultural affiliation, and the relationship and significance of the project area to environmental and cultural regions of which it is a part. If there are certain gaps in the knowledge of the area relative to the program, these should also be designated and taken into account within the research design.

3. The research goals and their rationale should include at least the identification of the cultural and environmental area to be studied, questions to be answered or hypotheses to be tested, the applicability of these hypotheses in the project area, and the needs of management as well as the reasons for selection of the research goals.

4. Research strategies, schedules, and priorities are to be delineated--including, minimally, an identification of the following and a statement of their significance to research goals:

    a. questions asked or hypotheses to be tested;
    b. for preliminary survey--identification of environmental situations and categories of cultural data to be examined;
    c. for proposed excavation--identification of sites, or groups of sites, or other resources to be investigated;
    d. reasons for selection of locations, sites, or other variables to be sampled (sampling procedure rationale);
    e. sample size and sampling procedure for (1) selection of sites, and (2) data recovery within site;

f. data recovery method, techniques, analysis procedures, and their relevance to aims and purposes of the project;
g. plans for publication and dissemination of research results.

5. Time schedule and a cost proposal for the total project are to be estimated as accurately as possible.

(After Anderson, see Anonymous "Requirements for a Research Proposal".)

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